

R E M A R K S

Reconsideration of this application is respectfully requested.

Claims 12, 14-17 and 19-21 were rejected under 35 USC 103 as being obvious in view of USP 6,327,599 ("Warmus et al"); claim 13 was rejected under 35 USC 103 as being obvious in view of the combination of Warmus et al and USP 5,588,103 ("Aoyagi"); and claim 18 was rejected under 35 USC 103 as being obvious in view of the combination of Warmus et al and USP 6,470,363 ("Kanerva et al"). These rejections, however, are respectfully traversed.

According to the present invention as recited in independent claim 12, for example, a document processing apparatus is provided which comprises:

document data obtaining means for obtaining plural document data each including plural pages each in a format with a page number added, the plural document data being prepared using respective different kinds of application programs;

storage means for storing the plural document data obtained by the document data obtaining means;

selecting means for selecting plural pages from among the plural pages included in the plural document data stored in the storage means to create a virtual document; and

controlling means for: (i) reading out the plural pages selected by the selecting means from the plural document data

stored in the storage means, (ii) amending the page number added in the format of each of the read out plural pages in accordance with the virtual document created by the selecting means, and (iii) outputting the plural pages each in the format with the amended page number added for a printing purpose.

The document data obtaining means of the claimed present invention corresponds to an operation whereby each application program acquires document data that has been SPOOL-stored by way of a print outputting function of a respective application program. This document data corresponds to a print image that has been divided into pages and to which page numbers have been applied.

The storage means of the claimed present invention stores the SPOOL-stored document data that would normally be deleted when the printing operation is complete. In particular, according to the claimed present invention, the SPOOL-stored document data is stored by the storage means in such a way that arbitrary pages of the document data are readily available for selection by the selecting means.

The selecting means of the claimed present invention allows the creation of a new virtual document by arbitrarily selecting pages from the plurality of pages of SPOOL-stored document data stored in the storage means.

And the control means of the claimed present invention reads data from print images corresponding to the selected pages, masks the original page numbers of the selected pages, and assigns new page numbers to the print images to allow the printing of the virtual document with new page numbers.

Thus, the present invention as recited in independent claim 12 (and each of claims 13-21) allows page data from all kinds of document forming applications to be combined into a virtual document, which can be printed as a single document. Since plural document data is obtained in a format corresponding to the operating system of the computer, it is possible to arbitrarily select pages which have been created by many different kinds of applications and combine the selected pages into a single virtual document for printing. However, since the stored plural document data is produced by the printing functions of the various applications, the stored page data has already been assigned a page number. As according to the claimed present invention, however, this problem is overcome by the control means of the claimed present invention. That is, the control means of the claimed present invention amends the page numbers of the selected page data and amends the page numbers for printing to correspond to the page order of the virtual document.

By contrast, it is respectfully submitted that Warmus et al does not disclose, teach or suggest the technical feature of the

claimed present invention whereby data is obtained from respective application programs and is stored in such a way that the data can be selectively formed into a virtual document.

Warmus et al discloses that "master and variable page files and the press command file are converted into bitmaps" (see column 5, lines 41 to 48). Significantly, however, Warmus et al does not disclose, teach or suggest that the bitmaps are produced from respective different kinds of application programs, as according to the claimed present invention. And the bitmap data of Warmus et al is merely SPOOL-stored for a normal printing operation - and is not stored in a selectable format in combination with document data formed by executing plural other application programs. Accordingly, it is respectfully submitted that the bitmap data converting means of Warmus et al does not correspond to the obtaining means and storage means of the claimed present invention.

In addition, it is respectfully pointed out that while the bitmap formatting of Warmus et al allows the databased data to be inserted into the variable pages of Warmus et al, this does not, however, correspond to the operating system of the computer. Thus, it is respectfully submitted that the stored document data of Warmus et al is not stored in a standardized format which can be applied to all application programs, as according to the claimed present invention. And it is respectfully submitted that

Warmus et al does not in fact disclose, teach or suggest the features of the selecting means and controlling means of the claimed present invention.

On page 4 of the Office Action, the Examiner argues that it would have been obvious to control the page numbers of Warmus et al to correspond to a virtual document. It is respectfully submitted, however, it was not well known in the art at the time that the present invention was made to change the page numbers on print images to which page numbers had already been applied so as to renumber the pages of a virtual document for printing.

In addition, it is respectfully submitted that even if the individual features of the claimed present invention had been known at the time the invention was made, it would not have been obvious to combine the features in the manner achieved by the claimed present invention. In this connection, it is respectfully submitted that the objects of the claimed present invention and the cited references are completely different, and that the solution to the problem of printing a document made up of pages from multiple applications is not at all suggested by any of the cited references.

Admittedly, the addition of page numbers to preselected positions on relevant pages when outputting designated data was/is a well known technical idea. It is respectfully submitted, however, that the claimed technical features of the claimed

present invention, whereby old page numbers are changed into new page numbers in order to reuse document data of a virtual document for printing, are entirely novel and unobvious.

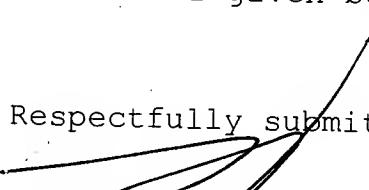
Accordingly, it is respectfully submitted that the claimed present invention patentably distinguishes over Warmus et al, taken singly or in combination with any of the other prior art references of record, under 35 USC 103.

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In view of the foregoing, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

  
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